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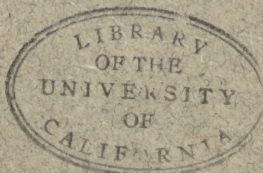
THE APPROACH OF ACADEMIC TO SPOKEN  
STYLE IN GERMAN

A STUDY IN  
POPULAR SCIENTIFIC PROSE  
FROM 1850 TO 1914

by

CHARLES FISCHER SLADEN,

A THESIS  
PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF DOCTOR OF PHILOSOPHY







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## PREFACE

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This study sprang from a suggestion of Dr. Learned that a certain recent scientific work was cumbered with obscure style, although its appeal was a popular one. German is much praised in America as pre-eminently the language of science; clearness would seem to be the most desirable quality for scientific purposes.

Many of these have been written upon literary German. From the American point of view it seemed worth while to consider German as a scientific medium and to determine as far as may be whether it be a clear one.

A necessary preface to such a study was the analytical statement of some elements of clearness in Chapter I. Then a corpus of representative popular scientific prose was needed, the task of covering the ground exhaustively being an impossible one. Seventy-one works were studied, two passages of fifty sentences being selected from each. The aim was to cover the period from 1870 and as many branches of science as possible, but to select popular resumès rather than original investigations.

The work began with the feeling that a striking move in the direction of simplicity was likely to be demonstrated during the period; this has been proven to be true beyond any question. In addition, an unanticipated result has been the determination of a number of norms for this kind of prose,—a sort of stylistic Bertillon measurements,—that may have their uses.

Thanks are due to Dr. Learned for the suggestion mentioned and to Dr. Learned and Dr. Shumway for helpful thoughts during the progress of the work.



## CHAPTER I.

### THE POINT OF VIEW.

German prose style is becoming simpler. This wholesome trend is patent to a superficial observer. Credit is due largely to teachers of composition. For years they have recommended clearness in preference to rhetorical finish. Text-books of style have ceased to display choice specimens of beautifully intricate sentences and urge instead that the sentence interfere as little as possible with the transference of thought.

But this materialistic age has furnished a more powerful incentive to write simply. All knowledge has become common property. Every new flight of speculative fancy and all the spoils of scholarly research must be told intelligently to the uneducated and the savant alike, in the next issue of the Sunday newspaper. Writers of magazine articles and feuilleton columns bend every effort to bring the most advanced achievements of science within the comprehension of the most unlearned. Now, in following a new train of reasoning, a strain is put upon the reader's attention. There is, then, no place for devices of fine writing that break the train of thought or compel one to look back or to re-read a sentence. The impulse of a writer for newspaper or magazine is to discard any linguistic model that is not easily comprehended by, say, the class of reader who has not been to a *Realschule*.

Feuilleton and magazine articles seldom come to be a permanent part of the corpus of literature. The man who reads yesterday's *Times* or a last year's magazine is rare. Stylistic flies preserved in that kind of amber are not likely to be found by later students of linguistic entomology. But some writers of magazine articles compose, more pretentiously, popular treatises. And the popular demand for information on all matters has called forth series after series of books treating technical subjects from the lay point of view. Further, the broadening in scope of the subject matter taught in the schools has necessitated countless treatments of scientific matters in a style adapted to the young. Such books often run into half a dozen editions. They form, then, a fairly permanent part of the corpus of written German. A new phrase or idiom attempted in such a book may be considered to be fairly secure of a place in good style. But the style they adopt is largely the simple style of the feuilletonist and the magazine writer. Evidently these books must be doing a large part to take up and make permanent the movement in the direction of simplicity in German prose style.\*

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\*Note.—To trace the connection between these simplifications of style and the varied influences that brought them about would probably be impossible,—certainly such an effort would lie outside the scope of this dissertation. But allusion should

In the effort to be comprehensible to the uneducated, written prose has been approaching the style of everyday speech, and by two methods. In the first place elements have been borrowed from spoken style. For instance, when Dr. Henning writes that one railroad is "über siebenmal so lange" as another, he is adopting a phrase that is used in the vernacular. In the second place, writers have made a conscious effort to express their thoughts in the way that will throw the minimum of strain upon the attention of the reader. Often this is not a way of expression that is used by the man who speaks. It may be a way devised for him by the user of written language. Or it may be a borrowing from another language where things are done more simply. An illustration may be taken from Dr. Behaghel's book, *Die Deutsche Sprache*. "Aus dem Wortschatz der Mundart haben Lessing, Wieland, Goethe, haben die Realisten unserer Zeit der verarmenden Schriftsprache neues Blut zugeführt." Clearness is aided by repeating the connecting word "haben," a device not of spoken but of written style.

Now the effort to be simple is seen in both vocabulary and syntax. The tendency is to choose a word in common use in preference to a word peculiar to some technical science. Frequently a slang word is used when it seems to be particularly expressive. Thus on the side of vocabulary the written style is approaching the style of speech both by direct borrowing and by a process of discarding those technical words that have helped to distinguish the written vocabulary from the spoken.

But on the side of syntax the possibility of borrowing from spoken style is greatly restricted. Spoken style does not possess sentence relationships other than those that are used in written prose. (Perhaps the "question and answer" science book might be considered an exception. Again, the use of rhetorical questions in didactic prose is a phenomenon gaining in scope,—this might be offered as an imitation from the vernacular.) But the great syntactical changes consist in the other process,—discarding constructions that interfere with ease of comprehension. The result is an approach to spoken style, for with unimportant exceptions spoken style has never been marked by intricacy of sentence structure. Thus the process going on is not an imitation of spoken style so much as a conscious effort of good writers to create

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be made to the very thorough-going campaign which the *allgemeiner deutsche Sprachverein* (founded by Hermann Riegel) has been carrying on for the past thirty years in the interests of purity and nationality of style. The *Zeitschrift* of the society, published monthly since 1886, has rendered service of incalculable value; first, through its efforts to build up a native vocabulary, painstakingly weeding out words of foreign derivation and suggesting or inventing native equivalents; second, by the analysis and criticism of awkward expressions for which the simple logical substitute is given (this constituting a regular department of the paper called *Zur Schärfung des Sprachgefühls*, a very suggestive name); and third, by maintaining a correspondence department to answer questions regarding purity of style. The *Wissenschaftliche Beihefte*, appearing since 1891, have contained many articles combatting those peculiarities of style with which the present study is concerned, and the society has published, from time to time, series of books for school use, illustrative of their conception of pure style.



a style free from those elements that require unusual attention from the reader.

We have, then, an effort to get rid of those constructions that do not make for clearness. Not that it will ever be wrong to write a fifteen-word participial construction or that the future perfect subjunctive mode will necessarily be eliminated from the language. But a large group of writers are making an effort to avoid them when possible. Doubtless many awkward constructions will continue to exist,—probably some will become mere relics,—possibly many will atrophy, as the subjunctive mode is atrophying in English.

Questions of literary style have sometimes been discussed from the impressionistic point of view. By this method, a writer might be credited with a pellucid style because the reader grasped his meaning easily. But style is not the only element that brings this result. For instance, the reader's familiarity with the subject matter that is being presented, or the writer's skill in grouping the facts in illuminating relationships, might have the same effect. Neither of these has to do with that skill in the use of language that we are now discussing,—the third aid to the easy transfer of thought.

It is not feasible to read a specimen of prose and then conclude that it is simple or involved because of the impression it has made. Even a discriminating reader would be misled by the various elements involved. An analysis of the elements that constitute simplicity of style is necessary before fair judgments can be formed in regard to individual writers or general tendencies.

### SOME CONSTRUCTIONS THAT ARE NOT SIMPLE.

Those syntactic phenomena that detract from simplicity have to do principally with sentence length, intricacy of sentences and verb form, and word order.

#### I. Sentence Length.

- a. Average Length. The average length of sentence in didactic prose, based on one hundred sentences or more, is nearly a constant for any given writer. Other things being equal, that writer whose average sentence length is low will be easier to read.
- b. Excessive Length. Very short sentences do not help the style as much as long ones hurt it. The percentage of sentences of over 30 and again of over 60 words is a guide to the way an author lets sentence length mar style.

#### II. Intricacy of Sentence and Verb.

- a. Modified Participles. A clear thinker chooses a substantive for his subject. One less gifted limits the substantive by adjectives and participles till it conveys his idea. One not gifted finds it necessary to limit these adjectives and participles in their turn. A noun modified by a participle which in turn is modified by a

group of words cannot be visualized by an ordinary human being without rereading. By practice one can learn to take in such a group slowly if it does not exceed six to eight words. That kind of artificial style which builds participial construction of this kind, dozens or scores of words in length, has done more to mar the simplicity and lucidity of the German sentence than anything else. Like the old ablative absolute, these attributes may express causal, temporal or other relationships that must be figured out before the substantive idea can be visualized.

- b. Modified Adjectives. The construction just described has been extended to include groups where an ordinary adjective takes the place of the participle.
- c. Elaborate Verb Forms. Just as many words are required in English or French as in German to express the compound verb forms,—yet German sentences habitually end with a weighty group of auxiliaries, while the tendency of the English and French writers seems to be to use the simpler verb forms when possible. The percentage of verbs of one, two and three words and the frequency of use of reflexives and passives form a criterion.

### III. Word Order.

Ideas presented successively can be grasped without that strain on the memory required by ideas bound into a symmetrical system by graded relationships and by the retention of some necessary word for the end of the group. The writer who adopts the former method is easier to understand than the writer who tries to make each sentence a climactic structure, incomprehensible till the last word has been reached. The effort to build periods has saddled upon German style two clumsy constructions.

- a. "Interlaced" Clauses. When a sentence contains a subordinate thought this comes, in consequence of the transposition of some essential word, to be interlaced between two parts of the main thought; in other words, two thoughts logically separate are formally intertwined.
- b. Climactic Absolute Groups. When participles are used in absolute constructions and placed in the climactic position, the details expressed by various modifiers must be held in memory till the controlling participle is reached.
- c. Postpositive Prepositions. For historical reasons certain prepositions follow their nouns. Since the office of a preposition is to connect its noun with what precedes, this position is illogical. Four prepositions are here considered "gegenüber," "gemäss," "nach" (English according to), and "wegen."

From the point of view here described, an analysis has been made of the style of the works mentioned in the list which follows:



Date	*	Author	Title	Pages	Science
1856	1	Löbe, Wm.	Handbuch der rationel- len Landwirtschaft.	79- 82 606-608	Agriculture
1858	2	Masius, Her- mann	Naturstudien.	I, 14- 21 II, 15- 19	Botany and Zoology
1862	3	DuBois-Rey- mond, F. H.	Kadmus.	21- 25 105-110	Accoustics
1862	4	v. Helmholtz, H. L. F.	populäre wissenschaft- liche Vorträge.	8- 12 44- 48	Nat. Science
1864	5	Griesinger, Wm.	Infektionskrankheiten.	158-162 368-373	Medicine
1864	6	v. Kobell, Franz	Geschichte der Miner- alogie.	242-250 368-376	Mineralogy
1865	7	Becker, Max	allgemeine Baukunde des Ingenieurs.	30- 33 418-421	Engineering
1865	8	Peschel, Oscar	Geschichte der Erd- kunde.	269-277 610-617	Geography
1867	9	Engelien, A.	Grammatik der Nhd. Sprache	15- 25 383-393	Grammar
1870	10	Meyer, Jürgen Bona	philosophische Zeit- fragen.	1- 5 266-269	Philosophy
1870	11	Scheffers, Au- gust	Darstellung der beim Privatbau gebräuch- lichsten Bauformen.	1- 5 99-102	Architecture
1871	12	Jäger, Oscar	Gymnasium und Real- chule I. Ordnung.	3- 9 34- 40	Pedagogy
1874	13	Holtzmann, Adolf	deutsche Mythologie.	11- 17 247-272	Mythology
1875	14	Sachs, Julius	Geschichte der Botanik vom 16 Jahrh. bis 1860.	81- 91 252-260	Botany
1877	15	Andree, Karl	Geographie des Welt- handels.	75- 77 356-358	Commercial Geography
1877	16	Gerhardt, C. J.	Geschichte der Mathe- matik in Deutschland.	1- 10 238-246	Mathematics
1878	17	Stöpel, F.	die Einheit des Gesetzes	25- 37 164-176	Sociology
1880	18	Andresen, Karl G.	Sprachgebrauch und Sprachrichtigkeit im Deutschen.	82- 87 328-335	Grammar
1880	19	Preyer, Wm.	naturwissenschaftliche Thatsachen und Prob- leme.	1- 7 123-127	Biology
1882	20	Schwebel, Oskar	deutsches Bürgerthum.	9- 13 374-378	Civics

\*Note.—Throughout this study reference will be made to the works studied by this serial number only.—it forms a chronological guide sufficiently accurate and the amount of reference needed precludes a more explicit method.

Date	* Author	Title	Pages	Science
1884	21 Stintzing, R.	Geschichte der deutschen-Rechtswissenschaft.	1- 7	Law
1886	22 Bartsch, Karl	Nibelungenlied (Einleitung).	185-190	
1886			5- 8	History of
1888	23 Socin, Adolf	Schriftsprache und Dialekte im Deutschen.	16- 21	Literature
1888			28- 34	Philology
1893	24 Hirsch, August	Geschichte der medizinischen Wissenschaften.	125 135	Medicine
1893			560-571	
1895	25 v. Giesebrecht, Wm.	Geschichte der deutschen Kaiserzeit.	VI, 80- 84	History
1895			182-185	
1896	26 Hart, Julius	Geschichte der Welt-Litteratur.	II, 61- 66	History of
1896			687-691	Literature
1899	27 Franke, Carl	die Brüder Grimm.	1- 11	Biography
1899			46- 53	
1899	28 Gildemeister, Otto	Essays.	I, 7- 14	Literary
1899			117-122	Criticism
1899	29 Heigel, K. Th.	deutsche Geschichte vom Tode Friederichs des Grossen bis zur Auflösung des alten Reichs.	40- 44	History
1899			340-344	
1900	30 Paul, Hermann	Mittelhochdeutsche Grammatik.	v- 1	Philology
1900			40- 45	
1901	31 Driesmans, Heinrich	die Wahlverwandtschaften der deutschen Blutvermischung.	31- 36	Ethnology
1901			171-178	
1902	32 Fokker, A. P.	Versuch einer neuen Bakterienlehre.	5- 12	Bacteriology
1902			37- 42	
1902	33 Kolbe, H.	Anleitung zum Sammeln, Konservierung und Verpackung von Tieren.	16- 19	Zoology
1902			70- 77	
1903	34 Möbius, Martin	botanisch-mikroskopisches Praktikum für Anfänger.	17- 23	Botany
1903			81- 89	
1903	35 Wagner, Hermann	Lehrbuch der Geographie.	127-130	Geography
1903			541-543	
1904	36 Schmidt, Richard	Liebe und Ehe im alten u. modernen Indien.	8- 13	Ethnology
1904			368-373	
1905	37 Ehrenreich, Paul	die Mythen und Legenden der südamerikanischen Urvölker.	1- 4	Ethnology
1905			70- 73	
1906	38 Donath, B.	die Grundlagen der Farbenphotographie.	55- 60	Photography
1906			154-158	
1906	39 Geinitz, F. E.	die Eiszeit.	36- 39	Physical
1906			105-109	Geography



Date *	Author	Title	Pages	Science
1906 40	Marshall, Wm.	die deutschen Meere und ihre Bewohner.	27- 34	Zoology
1907 41	Behagel, Otto	die deutsche Sprache.	350-355	
			43- 47	Philology
			130-134	
1907 42	Holz, Georg	der Sagenkreis der Nibelungen.	42-45	Comparative Literature
			100-108	
1907 43	Kerschensteiner, G.	Grundfragen der Schulorganization.	1- 8	Pedagogy
			142-149	
1907 44	Walther, Carl	das Staatshaupt in den Republiken.	1- 10	Law
			107-113	
1908 45	Sütterlin & Waag	deutsche Sprachlehre.	1- 7	Grammar
			103-107	
1909 46	Eckstein, Karl	Tierleben des deutschen Waldes.	1- 8	Zoology
			79- 84	
1909 47	Gutmann, Bruno	Dichten und Denken der Dschagga-Neger.	68-72	Ethnology
			101-104	
1909 48	Hennig, Richard	Bahnen des Weltverkehrs.	4- 10	Commercial Geography
			244-252	
1909 49	Meisenheimer, J.	experimentelle Studien zur Geschlechtsdifferenzierung der Schmetterlinge.	13- 20	Entomology
			105-110	
1909 50	Weise, Oskar	Aesthetik der deutschen Sprache.	18- 24	Rhetoric
			138-144	
1910 51	Effenberger, W.	Naturgeschichte der kleinsten Tiere.	19- 23	Zoology
			99-104	
1910 52	Lexis, Wm.	allgemeine Volkswirtschaftslehre.	1- 4	Economics
			137-141	
1911 53	Birt, Theodor	zur Kulturgeschichte Roms.	46- 47	History of Culture
			120-123	
1911 54	Graebner, F.	Methode der Ethnologie.	7- 14	Ethnology
			147-152	
1911 55	Hoppe, Edmund	Mathematik and Astronomie im klassischen Altertum.	2- 7	Astronomy & Mathematics
			166-170	
1911 56	Schrader, Otto	die Indogermanen.	20- 24	History of Culture
			101-105	
1912 57	Hoernes, Moritz	Kultur der Urzeit.	14- 22	Archæology
			106-114	
1912 58	Kluge, Friedrich	Wortforschung und Wort-Geschichte.	1- 9	Philology
			102-105	
			162-166	
1912 59	Lamprecht, Karl	deutsche Geschichte der jüngsten Vergangenheit und der Gegenwart.	I, 76- 82	History
			474-480	

Date *	Author	Title	Pages	Science
1913 60	Drude, Oscar	die Ökologie der Pflanzen.	3- 8 214-220	Botany
1913 61	Höfler, Alois	Didaktik der Himmelskunde.	10- 19 333-343	Astronomy & Pedagogy
1913 62	Indra, A.	Oxydation des Ammoniaks.	145-152 181-187	Chemistry
1913 63	v. Meyer, Ernst	Entwicklung der Chemie.	1- 5 26- 29	Chemistry
1913 64	Strasburger, Ed.	pflanzliche Zellen-und Gewebelehre.	1- 4 121-123	Botany
1914 65	Abel, O.	die vorzeitlichen Säugetiere.	35- 42 218-223	Zoology
1914 66	Auerbach, Felix	historische Entwicklung der Akustik.	81- 85 93- 98	Physics
1914 67	Baur, Erwin	Regeneration u. Transplantation im Pflanzenreich.	378-382 398-402	Biology
1914 68	Bluemel, Rudolf	Einführung in die Syntax	3- 7 106-110	Grammar
1914 69	Brun, Rudolf	die Raumorientierung der Ameisen.	25- 31 154-158	Entomology
1914 70	Przibram, Hans	Regeneration u Transplantation im Tierreiche.	162-165 343-346 371-374	Biology
1914 71	Radl, Emanuel	zur Geschichte der Biologie.	1- 5 14- 18	Biology



## CHAPTER II.

### THE MODIFIED PARTICIPLE.

This idiom is at present peculiar to the German language. It does not antedate the Humanistic period. It consists of a noun, modified by a participle which in turn is modified by a group of words or governs such a group. All these coming between the article and the noun make an intolerably complicated substantive group and one which presents the words in the wrong order. The noun is the principal word; the participle is meaningless and without relationship until the noun has been grasped by the mind. In turn the participle must be grasped before its modifiers can take their proper place in the thought group. So the construction has to be apprehended backwards,—a feat of mental gymnastics possible with training, but not worth while and not in harmony with the prevailing order in which thoughts are grasped.

This construction a thousand years ago was an exotic curiosity. Now, doubtless, it is an ineradicable feature of German sentence structure. When it is limited to a few words it can be taken in by a far-sighted reader with comparative ease and without rereading. It is objectionable in proportion to its length.

The large number of instances of modified attributive participles render it desirable to give a preliminary survey of the number and kinds of illustrations to follow. From it an idea may be had of the varied forms that the idiom assumes.

\* Participle I modified by an adverb..... 131

Participle I modified by a group of adverbs..... 27

(of these, 2 words	19
3   “	7
5   “	1

Participle I modified by a prepositional group..... 220

(of these, 2 words	55		8 words	3
3   “	59		9   “	6
4   “	37		10   “	4
5   “	29		12   “	2
6   “	16		13   “	2
7   “	7			

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\*Conforming to the sensible German usage, the Participles will be distinguished as Participle I and Participle II, the former being, of course, the Participle ending in “end.”

Participle I governing a direct object.....	107
Participle I governing a dative case.....	39
Participle II modified by an adverb.....	271
Participle II modified by a group of adverbs.....	103
(of these, 2 words	79
3   “	20
5   “	2
6   “	1
10  “	1
Participle II modified by a prepositional group.....	473
(of these, 2 words	117
3   “	134
4   “	85
5   “	66
6   “	25
7   “	19
8   “	9
9   “	5
10  “	5
11  “	3
12  “	2
14  “	2
22  “	1
Participle II governing a substantive or modified by one....	49
(of these, genitive.	1
dative	29
pred. appositive	19
Groups of several modified attributive participles or groups of such constructions combined with modified attribute adjectives .....	133
(of these, 3 word groups	1
4   “	14
5   “	23
6   “	16
7   “	13
8   “	15
9   “	10
10  “	6
11  “	10
12  “	6
13  “	4
14  “	4
15  “	3
16  “	2
17  “	4
18  “	1
27  “	1
Groups of substantives with modified participles.....	18
(of these, 2 substantives	13
3   “	4
4   “	1



**Participle I modified by an adverb ..... 131 instances**

Example "von den überall rieselnden Quellen" (2).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	3	23	1	40	1	59	3
3	4	25	1	42	2	60	8
4	2	27	4	43	3	61	2
5	10	28	2	45	2	62	1
6	1	29	1	46	5	63	3
9	3	30	1	47	1	64	1
11	2	31	2	48	2	65	2
12	2	33	1	49	2	66	1
13	1	34	2	50	4	67	4
17	3	35	2	52	1	69	8
18	3	36	1	54	1	70	1
20	2	37	4	57	5	71	4
22	2	38	2	58	2	Total...	131

**Participle I modified by a group of adverbs ..... 27 instances**

Group of 2 words, example "das immer noch steigende Interesse" (14).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
4	1	23	1	36	1	65	3
5	1	24	1	45	1	67	1
14	1	27	1	48	1	Total...	19
17	1	30	1	55	1		
19	1	34	1	60	1		

Group of 3 words, example "ein noch so wichtig erscheinendes Prinzip" (60).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	2	46	1	60	1	61	1
3	1	49	1			Total...	7

Group of 5 words, example "bei dem zweiten, viel rascher und mehr sprungweise vorschreitenden Zuge" (5), the only instance.

**Participle I modified by a prepositional group ..... 220 instances**

Group of 2 words, example "die nach aussen dringende Wärme" (35).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	1	27	1	50	2	62	4
3	1	33	1	51	1	63	1
6	1	35	3	52	1	64	1
11	4	38	1	54	1	65	2
12	1	42	2	56	2	66	2
14	2	45	2	57	1	67	5
23	1	46	4	58	1	69	1
25	1	48	1	59	1	71	2
						Total...	55

**Group of 3 words**, example "eine weit ins Meer hinausgehende Landungsbrücke" (20).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	16	1	34	1	59	1
2	1	17	2	35	1	60	1
3	1	18	1	38	1	61	1
5	1	19	1	39	1	62	2
6	3	20	1	44	1	63	2
7	1	21	2	46	1	66	3
10	1	24	1	48	1	67	1
11	3	26	1	52	1	69	4
12	1	31	1	54	1	70	1
14	1	32	2	55	1	71	2
15	2	33	1	58	1	Total...	59

**Group of 4 words**, example "die in Würfeln und Oktaedern krystallisirenden Körper" (6).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
6	1	29	1	42	1	63	1
7	1	32	1	46	1	64	2
9	1	34	2	47	1	67	1
11	2	35	2	48	3	69	1
17	1	36	2	49	1	70	1
19	2	39	1	52	2	71	2
27	1	40	1	60	1	Total...	37

**Group of 5 words**, example "eine aus mehreren oder vielen Kammern bestehende Kalkschale" (51).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	32	1	49	2	60	1
9	1	33	1	51	1	61	1
10	1	34	3	54	3	62	1
17	1	39	1	56	2	69	1
22	1	46	1	57	1	71	1
24	1	47	1	59	1	Total...	29

**Group of 6 words**, example "anderer an den festen Theilen des Körpers vorkommenden physikalischen Veränderungen" (24).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
3	2	24	3	43	1	49	1
19	2	27	1	44	1	59	2
22	1	35	1	48	1	Total...	16

**Group of 7 words**, example "das bei jeder Unterrichtsanstalt selbstverständlich mit in Betracht kommende Prinzip" (12).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
9	1	24	1	63	1	67	1
12	1	32	1	65	1	Total...	7

**Group of 8 words**, example "einer in der punktirten Linie senkrecht auf dem Papier stehenden Ebene" (34).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
34	1	48	1	62	1	Total...	3

**Group of 9 words**, example "der in der Nähe einer grossen Stadt, einer Eisenbahn usw. wohnende Landwirth" (1).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	44	1	48	1	60	1
37	1	46	1			Total...	6



**Group of 10 words**, example "die bei primärer Desorientierung zum Beispiel nach Transport vom Neste weg entstehende Form" (69).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
10	1	54	1	61	1	69	1
							Total... 4

**Group of 12 words**, example "eine Reihe mit dem Konstitutionalismus der Beteiligung des Volkes an der Ausübung der Staatsgewalt, zusammenhängender neuer Begriffe" (44).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
44	1	69	1				Total... 2

**Group of 13 words**, example "diese mit der Lebensweise der Insekten Tausendfüßler und Spinnen je nach der Art derselben zusammenhängenden Naturobjekte" (33).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
20	1	33	1				Total... 2

#### Participle I governing a direct object ..... 107 instances

Examples vary in length of object from one word to nine "der Saft führenden Canäle" (14) "einer selbst das damalige Mass von allgemeiner Bildung und allgemeiner Wirksamkeit überragenden Universalität" (66).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	21	2	38	1	57	1
2	1	22	1	40	1	58	2
3	2	23	2	43	1	59	2
4	2	24	7	44	6	60	7
5	1	27	3	46	5	61	3
7	1	28	2	47	1	62	1
9	3	29	3	48	1	63	5
11	1	31	2	50	2	64	2
14	3	33	1	51	1	65	3
15	1	34	3	53	1	66	1
17	5	36	1	54	2	69	1
19	4	37	2	56	1	71	2
							Total... 107

#### Participle I governing a dative case ..... 39 instances

Examples "die dem Klange entsprechende Wellenform" (66) "einen der Grösse des Deckglaschens entsprechenden Lackrand" (34).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	19	2	42	1	61	1
4	1	24	4	44	3	64	2
5	2	26	1	48	1	65	2
9	1	27	1	49	1	66	2
11	1	28	1	50	1	69	1
14	1	31	1	52	2		
17	1	34	2	54	2		
							Total... 39

**Participle II modified by an adverb . . . . . 271 instances**

Examples "die aseptisch herausgeschnittenen Organe" (32) "leicht gekrümmtes Rohr" (49).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	2	19	3	36	4	54	4
2	3	20	4	37	4	56	3
3	4	21	7	38	1	57	8
4	5	22	2	39	1	58	1
5	9	23	4	40	4	59	4
6	8	24	8	42	4	60	9
8	2	25	3	43	9	61	7
9	2	26	2	44	1	62	7
10	1	27	2	45	5	63	9
11	7	28	2	46	4	64	7
12	3	29	1	47	2	65	4
13	1	30	1	48	5	66	4
14	8	31	3	49	10	67	8
15	3	32	4	50	2	68	1
16	8	33	1	51	5	69	1
17	3	34	2	52	2	70	5
18	2	35	2	53	1	71	3
							Total... 271

**Participle II modified by a group of adverbs . . . . . 102 instances**

**Group of 2 words**, example "ganz kurz gehaltene Fichten" (46).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	1	28	1	46	1	63	2
4	1	29	1	48	3	64	2
5	1	30	1	49	1	65	2
14	1	34	2	52	1	67	3
16	1	37	2	56	1	69	2
19	1	38	2	57	2	70	1
21	1	40	1	60	3	71	2
24	1	42	1	61	1	Total... 79	
27	3	44	4	62	1		

**Group of 3 words**, example "der sonst so hofmännisch gemässigte Goethe" (4).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
4	1	17	1	46	2	66	1
6	1	21	1	56	2	67	1
10	1	37	1	60	2	71	1
14	2	43	1	61	2	Total... 20	

**Group of 5 words**, example "eine wenn auch noch so bescheiden gehaltene Schule" (43) the only instance.

**Group of 6 words**, example "denselben nur um so härter und fester geschmiedeten Waffen" (31) the only instance.

**Group of 10 words**, example "diesen bald mehr mandelkern-oder lanzettförmig, bald oval, dreieckig oder ähnlich gebildeten Keilen" (57) the only instance.



Participle II modified by a prepositional group . . . . . 473 instances

Group of 2 words, example "die von Gauss ausgeführte Triangulation (16).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	22	2	37	2	57	1
2	2	24	9	38	3	58	2
3	2	25	1	39	2	61	2
4	2	26	1	40	1	62	3
6	4	27	6	42	3	63	2
8	2	28	2	43	2	64	3
10	1	29	2	45	4	65	1
11	1	30	2	46	2	66	3
14	3	31	1	47	1	69	1
15	1	32	3	48	4	70	2
16	7	33	5	50	1		
17	1	35	1	51	2		
21	2	36	2	52	4	Total...	117

Group of 3 words, example "der aus dem Volksmunde vernommenen Kinder und Hausmärchen" (27).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	18	2	35	4	56	3
2	2	19	1	36	3	57	2
3	1	20	2	37	2	59	1
4	1	21	3	38	5	60	4
5	3	22	1	40	2	61	1
6	3	23	2	43	2	62	2
7	1	24	8	44	2	63	3
9	4	25	3	46	4	64	2
10	1	27	3	48	1	65	1
11	3	28	1	49	2	66	2
12	1	29	3	51	1	67	1
14	4	31	1	52	3	69	3
15	2	32	2	53	1	70	2
16	5	33	1	54	2	71	2
17	2	34	2	55	2	Total...	134

Group of 4 words, example "der am Ende der Pliocänzeit abgelagerte Ton" (39).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	1	24	7	40	1	57	1
3	1	27	1	42	1	60	2
5	1	29	2	43	3	61	2
6	2	30	1	44	2	62	2
7	4	32	1	46	2	63	1
12	1	33	2	47	1	64	3
14	2	34	1	48	1	65	2
16	1	35	1	49	3	66	2
17	2	36	1	52	5	67	3
20	1	38	4	54	1	69	3
21	1	39	1	56	4	71	1
						Total...	85

**Group of 5 words**, example "den mit diesen Kose- und Tändelsilben versehenen Namen" (50).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	2	20	1	40	2	61	2
2	1	21	1	44	1	62	1
4	2	22	1	46	1	63	2
5	3	23	1	48	2	65	1
6	1	24	3	50	2	66	2
9	2	27	3	52	2	67	1
11	1	28	3	54	1	69	2
12	2	33	2	56	3	70	1
14	2	34	1	57	1	71	1
17	3	38	1	60	1	Total...	66

**Group of 6 words**, example "die von Weiss 1815 und Mohs 1820 aufgestellten Krystallsysteme" (6).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
5	1	27	1	44	1	62	1
6	2	29	1	50	1	69	1
9	1	34	2	54	3	70	1
24	1	37	2	56	1		
26	1	43	3	60	1	Total...	25

**Group of 7 words**, example "den früher bei den Polypen mit pflanzenartigen Habitus geschilderten Heteromorphosen" (70).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	1	24	2	42	1	69	2
11	1	31	1	48	2	70	1
14	1	38	1	52	2	71	1
21	1	40	1	56	1	Total...	19

**Group of 8 words**, example "der von Graf Mercy und den Gesandten des Dreibunds unterzeichneten Konvention" (29).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
3	1	29	1	48	1	56	1
11	1	31	1	50	1	65	1
16	1					Total...	9

**Group of 9 words**, example "einer gegen Kanne, der dem Mythos zu viel Platz einräumte, gerichteten Abhandlung" (27).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
3	1	37	1	54	1	66	1
27	1					Total...	5

**Group of 10 words**, example "sein künstliches auf die Zahl, Verwachsung und Gruppierung der Staubgefäße und Carpell gegründetes System" (14).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
14	1	39	1	59	1	69	1
37	1					Total...	5

**Group of 11 words**, example "der im vorigen Abschnitt unter 4 und dem folgenden Absatz Seite 152 erwähnten speziellen Verfahren" (38).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
38	1	52	1	54	1	Total...	3

**Group of 12 words**, example "der am Anfange des 17 Jahrhundert von Albert Kyper an der letztgenannten Universität gemachten Versuche" (24).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
24	1	61	1			Total...	2



**Group of 14 words**, example "dem von Denis in seiner Beschreibung der fete bresilienne a Rouen en 1555 Paris 1851 gegebenen Auszuge" (37).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
37	1	67	1			Total...	2

**Group of 22 words**, example "die hauptsächlich durch die beiden aufgezeigten Momente, die Einführung des Konstitutionalismus in die Monarchie und die Schaffung eines monarchenähnlichen Staatsoberhauptes in der Republik verursachte Unsicherheit" (44) the only instance.

## Participle II governing a substantive or modified by one. .49 instances

**Substantive in the genitive case**, example "eine ihrer Zellwand ganz oder teilweise beraubte Zelle" (67) the only instance.

**Substantive in the dative case**, examples vary in length from one word to five, "die ihnen gewährten Privilegien" (25) "die den Kulturländern und alten Schiffahrtswegen zunächst benachbarten Teile" (48).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
6	1	24	1	44	1	64	1
9	1	25	1	46	1	66	1
14	1	26	1	48	2	67	1
17	1	28	1	52	2	70	1
20	1	32	1	57	2		
22	1	42	1	60	1		
23	2	43	1	61	1	Total...	29

**Substantive a predicate appositive**, examples "eine der Möwenberg genannte Sandbank" (40), "seinen nun fast überall unanschaulich gewordenen Thesen" (61).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
5	2	23	1	30	1	46	1
10	1	24	1	37	1	52	1
17	1	27	1	40	1	61	3
21	1	28	1	44	1	65	1
						Total...	19

## Groups of several modified participles or adjectives . . . . . 133 instances

**Group of 3 words**, example "das so-geannte reticulirte Ansehen" (5) the only instance.

**Group of 4 words**, example "ihre nachbarlich zusammenliegenden sicher geschiedenen Felder" (12).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	1	22	1	37	1	52	1
4	1	27	1	48	1	60	1
12	1	28	2	49	1	61	1
14	1					Total...	14

**Group of 5 words**, example "einfach brechende und dopplet brechende Krystalle" (6).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	1	18	1	53	1	64	1
6	3	33	2	58	2	65	1
14	1	36	1	61	2	67	2
16	1	48	1	63	1	69	2
						Total...	23

**Group of 6 words**, example "der seit zwei Jahrhunderten herrschenden gleichförmig temperierten Stimmung" (66).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	2	13	1	37	1	57	1
3	1	24	3	40	1	60	1
5	2	27	1	44	1	66	1
				Total... 16			

**Group of 7 words**, example "ein überaus bewegtes von ungezählter Kraft wahrhaft überschäumendes Leben" (20).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
20	2	28	1	48	1	62	1
23	1	31	1	49	1	67	1
25	1	36	1	54	1	69	1
				Total... 13			

**Group of 8 words**, example "die letzten ihr zugrunde liegenden and in ihr wirksamen Naturkräfte" (4).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	1	11	1	42	1	59	2
4	1	26	1	46	1	60	1
5	3	34	1	48	1	66	1
				Total... 15			

**Group of 9 words**, example "selbst sehr nahe verwandte und angeblich sogar sexuell kreuzbare Arten" (57).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
35	2	38	1	49	1	65	1
37	1	48	1	61	2	67	1
				Total... 10			

**Group of 10 words**, example "eine zwar anders geartete ihr gleich wohl geeignete oder selbst bessere Vorbildung" (12).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
5	1	24	1	59	1	69	1
12	1	57	1	Total... 6			

**Group of 11 words**, example "ein zwar richtig orientiertes aber normalerweise einem anderen Segmente des Körpers angehöriges Gebilde" (70).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
4	1	19	1	42	1	67	1
14	1	21	2	54	1	70	1
17	1					Total... 10	

**Group of 12 words**, example "eine im Weltraum freischwebende und von Sonnenstrahlen unter diesen oder jenen Winkeln getroffene Erdkugel" (61).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
12	1	24	1	44	1	64	1
16	1					Total... 5	

**Group of 13 words**, example "eine nach fremden und zahlreichen eigenen Beobachtungen bearbeitete den Charakter einer speziellen Pathologie tragende clinique medicale" (24).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
24	1	64	1	70	1	71	1
				Total... 4			

Group of 14 words, example "das am letzten Schultage oder gar während der fälschlich als Reifeprüfung bezeichneten Schauprüfung zufällig parate Wissen" (61).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
24	1	44	1	61	1	69	1
				Total... 4			

Group of 15 words, example "die früher an der vollen Intensität der Krankheit allein erfolgten mit enormer Entwicklung der Darmaffection verlaufenden Fälle" (5).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
5	1	59	1	60	1		
				Total... 3			

Group of 16 words, example "beim Nesteingang unter dem Randstein eines Trottoirs abgefangene und mehrere Meter entfernt auf einer Chaussee ausgesetzte Ameisen" (69).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
49	1	69	1				
				Total... 2			

Group of 17 words, example "eine von Sängers-Shepherd angegebene und neuerdings von E. König im Verein mit den Höchster Farbwerken als Pina- typie ausgebildete Methode" (38).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
38	1	43	1	59	1	60	1
				Total... 4			

Group of 18 words, example "den sei es intuitiven sei es der praktischen Erfahrung bei der Feldmesskunst usw. entstammenden und darum stets nur annähernden Weg" (59) the only instance.

Group of 27 words, example "die von Fourcroy der sich um die Bearbeitung der organischen Chemie die grössten Verdienste erworben hatte in einem an Humboldt gerichteten, in der decade philosophique abgedruckten, Briefe abgegebene Erklärung" (24) the only instance.

#### Group of substantives with modified participles . . . . . 18 instances

Group of 2 substantives, example "wobei er zu bemerkenswerten und für die höhere Geodasie wichtigen Erweiterungen des bekannten von Legendre zuerst 1787 ohne Beweis aufgestellten Lehrsatzes gelangt" (16).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	27	1	46	2	70	3
16	1	44	1	63	1	71	2
20	1					Total... 13	

Group of 3 substantives, example "dass alle von Einem Punkt der ersten Fläche ausgehende und in ihr liegende unendlich kleine Linien den ihnen entsprechenden Linien der zweiten Fläche proportional sind" (16).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
16	1	46	1	70	2		
				Total... 4			

Group of 4 substantives, example "der noch zum Befühlen der Nahrung dienende Kieferfuss der Strandkrabbe kann durch die bloss zum Fassen dienende Schere, der mit einer Haftborste ausgestattete Hinterflügel der Schmetterlinge durch den einer solchen entbehrenden Vorderflügel ersetzt sein" (70) the only instance.



## MODIFIED ADJECTIVES.

This construction is a development from the modified participle, the only difference being that an ordinary adjective replaces the participle. These adjectives in the majority of cases are such as end in "ig," "ich," or "bar" or verbal adjectives in general.

*Survey of the instances of modified attributive adjectives that are listed in this section.*

Attributive adjective modified by an adverb or noun.....	325
(of these, adverbs	319
nouns	6
Attributive adjective modified by group of adverbs or nouns	80
(of these, 2 adverbs	49
2 nouns	4
3 adverbs	18
3 nouns	4
4 adverbs	2
4 nouns	2
5 adverbs	1
Attributive adjective modified by prepositional group.....	152
(of these, 2 words	31
3 "	43
4 "	39
5 "	17
6 "	10
7 "	3
8 "	3
9 "	2
10 "	1
13 "	2
20 "	1
Attributive adjective modified by clause.....	3
Attributive adjective governing a noun.....	55
(of these, dative	44
genitive	9
accusative	2
Groups of modified attributive adjective constructions.....	44
(of these, 4 words	15
5 "	10
6 "	4
7 "	2
8 "	5
9 "	2
10 words	2
11 "	1
12 "	1
13 "	1
14 "	1
Groups of substantives with modified attribute adjectives..	4

## Attributive adjective modified by an adverb or noun . . . . 325 instances

Modified by an adverb, example "die praktisch fruchtbaren Gesichtspunkte" (5).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
1 1	19 3	36 1	55 1
2 5	20 4	37 9	56 4
3 6	21 2	39 4	57 10
4 5	22 2	40 2	58 6
5 24	23 3	42 1	59 14
6 2	24 10	43 1	60 13
7 1	25 1	44 2	61 12
8 2	26 5	45 2	62 10
9 6	27 3	46 1	63 5
10 2	28 9	47 2	64 3
11 1	29 1	48 13	65 3
12 7	30 6	49 3	66 13
13 2	31 2	50 3	67 3
14 6	32 2	51 3	68 3
15 4	33 3	52 4	69 3
16 9	34 1	53 1	70 1
17 6	35 3	54 8	71 2
18 4			Total... 319

Modified by a noun, example "dem milzbrandkranken Organplasma" (32).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
2 1	27 1	48 1	65 1
22 1	32 1		Total... 6

## Attributive adjective modified by a group of adverbs or nouns . . . . . 80 instances

Group of 2 words, example "wie viel ernstere Sorgen" (28).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
10 1	28 3	44 1	60 3
14 4	29 1	48 4	61 4
16 1	31 1	49 1	63 2
18 2	33 4	56 1	66 1
20 1	37 2	58 3	67 1
24 2	42 1	59 2	69 4
27 2	43 1		Total... 53

Group of 3 words, example "einer knapp halb so langen Kamerunbahn" (48).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
10 1	34 1	46 2	61 5
12 1	39 1	48 2	64 1
26 1	43 1	52 1	69 2
27 1	44 1	57 1	Total... 22

Group of 4 words, example "eine wenn auch noch so unvollkommene Unterscheidung" (64).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
39 2	61 1	64 1	Total... 4

Group of 5 words, example "dieser ja auch nicht mehr so einfachen Wohnbauten" (57) the only instance.

## Attributive adjective modified by a prepositional group, 152 instances

Group of 2 words, example "der auf ihnen erreichbaren Entwicklungsreihen" (54).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	1	24	3	43	1	61	2
3	1	26	1	48	1	62	1
4	1	32	1	49	1	64	1
10	1	37	3	51	1	66	1
14	1	38	1	52	1	69	1
19	2	42	1	54	1	70	1
20	1					Total...	31

**Group of 3 words, example "das dem Wesen nach Zusammengehörige"**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	2	23	1	44	1	61	1
5	1	24	2	47	1	63	1
8	1	29	2	48	3	64	2
11	1	30	1	49	1	65	1
14	1	37	2	54	2	66	2
16	2	38	3	56	1	70	2
17	2	42	1	59	1	71	1
19	1					Total...	43

**Group of 4 words, example "zu bemerkenswerthen und für die höhere Geodasie wichtigen Erweiterungen" (16).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	24	2	49	2	62	1
3	2	27	2	51	1	63	2
7	1	33	1	56	2	65	1
9	1	34	1	57	1	66	1
14	1	36	1	59	3	67	1
16	1	37	1	60	1	69	3
18	1	47	1	61	1	71	1
19	1					Total...	39

**Groups of 5 words, example "ein mit dem Verschwinden der Cholera gleichmässiges Abnehmen" (5).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
4	1	28	1	52	1	62	1
5	1	30	2	54	1	69	2
9	1	37	1	59	1	70	1
14	2	46	1			Total...	17

**Group of 6 words, example "jedes hinsichtlich seines Standortes und seiner Holzarten eigenartige Waldgebiet" (46).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	24	1	46	1	67	1
5	1	39	1	64	1	70	1
23	1	44	1			Total...	10

**Group of 7 words, example "eine für die Entwicklung der Pariser Schule sehr einflussreiche Persönlichkeit" (24).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
24	1	34	1	46	1	Total...	3

**Group of 8 words, example "einer für das Gedeihen von Leib und Seele unumgänglich notwendige Hauptsache" (36).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
12	1	26	1	36	1	Total...	3

**Group of 9 words, example "das durch Vergleichung der beiden Bearbeitungen uns noch im wesentlichen erreichbare Original" (42).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
24	1	42	1			Total...	2



**Group of 10 words**, example "eine alte mächtige für den Dienst einer aufsteigenden Kultur und Zivilisation immer noch unentbehrliche Erziehungskraft" (43) the only instance.

**Group of 13 words**, example "diese gerade hinter der Mundhöhle fast wie ein zweiter nicht leicht sichtbarer kleiner Mund befindliche Höhle" (3).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
3	1	61	1				Total... 2

**Group of 20 words**, example "die von Piedrahita in seiner historia general de la conquista del nuevo reino de Granada 1618 auf die Kulturheroen der Chibcha bezüglichen Mythen" (37) the only instance.

### Attributive adjective modified by a clause ..... 3 instances

Example "ein wenn man will subjektives Element" (54).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
43	1	54	2				Total... 3

### Attributive adjective governing a noun ..... 55 instances

**Noun in the dative case**, example "eines dem originalen Terrain in allen Einzelheiten fast spiegelbildlich ähnlichen Komplexes" (69).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	24	2	46	1	62	1
3	1	25	1	49	1	63	1
5	3	28	1	53	1	64	1
10	1	35	4	56	1	66	2
12	1	36	1	57	1	69	2
16	2	40	1	59	2	70	2
17	1	41	1	60	3	71	1
22	1	42	2				Total... 44

**Noun in the genitive case**, example "eines dauerbaren, widerstandsfähigen Weibwesens" (31).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
5	1	23	1	31	2	62	1
18	1	28	1	48	2		Total... 9

**Noun in the accusative case**, example "anderem tonerdehaltigen Material" (62).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
24	1	62	1				Total... 2

### Groups of modified adjective constructions ..... 44 instances

**Group of 4 words**, example "eines wirklich dumpfen sklavisch demütigen Seelenlebens" (26).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
3	1	6	1	26	1	48	2
4	3	15	1	30	1	57	2
5	1	18	1	34	1		Total... 15

**Group of 5 words**, example "das morphologisch recht wertvolle phylogenetisch verwertbare Beiwerk" (60).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
5	1	46	1	59	1	64	1
12	1	52	1	60	1	67	1
26	2						Total... 10

**Group of 6 words**, example "den ausserordentlich eigensinnigen gewöhnlich jedem Rath unzugänglichen Bischof" (25).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
19	1	25	1	60	1	63	1
						Total...	4

**Group of 7 words**, example "einer sehr eigenartigen für unsere Verhältnisse schwer vorstellbaren Weise" (48).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
10	1	48	1				
						Total...	2

**Group of 8 words**, example "selten ungeflügelte sehr winzige bei grober Betrachtung fliegenähnliche Insekten" (33).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
25	1	41	1	64	1	67	1
33	1					Total...	5

**Group of 9 words**, example "oft verlorener und für den Kampf ums Dasein notwendiger Organe" (70).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	70	1				
						Total...	2

**Group of 10 words**, example "die hervorragend zweckmässigen und in ihrer praktischen Wirkung oft geradezu staunenerregenden Farben" (38).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
38	1	48	1				
						Total...	2

**Group of 11 words**, example "einem einzigen sehr vielkernigen oft bis zu 30 cm. langen und mehrere Zentimeter dicken Protoplasten" (67) the only instance.

**Group of 12 words**, example "eine kaum mittlere ja selbst vor grossen Epidemien eine für die Jahreszeit auffallend geringe (Zahl)" (5) the only instance.

**Group of 13 words**, example "ein grosses fast 1.5 Kg. schweres 9 Zoll langes 6 Zoll breites und 4 Zoll hohes (Stück)" (40) the only instance.

**Group of 14 words**, example "diese organlosen, an allen Stellen ihres Körpers scheinbar gleichartigen nicht thierischen nicht pflanzlichen sondern nur lebenden Gebilde" (19) the only instance.

## Groups of substantives with modified attributive adjectives, 4 instances

Example "einer zu den Strahlentierchen (Radiolarien) gehörigen Urtierform, Thalassicolla, die eine mit freiem Auge deutlich sichtbare Grösse erreicht (70).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
12	1	14	2	70	1		
						Total...	4

## AUXILIARIES OF THE PASSIVE.

The formation of the passive voice is undergoing in the period under consideration a change that consists in an approach to the simplicity of spoken style; consequently it comes in here for discussion.

After experimenting with various auxiliaries German reduced the result not to one but to two, with the distinction that "werden" describes an act and "sein" a resulting state. This distinction in use is breaking down. Grammarians have often pointed out that in the optative "sein" is used instead of "werden," even in describing an act; in the present study many instances have been met where the same tendency is seen in other modes. Frequently it is an open question whether the intention is to describe an act or a condition; the instances noted below in this section are such that the context, or the use of some "agent" construction, or a peculiarity in the meaning of the verb shows that the auxiliary "sein" is being used *in describing an act*. Instances of the reverse kind are less common. The confusion is greatest with certain verbs, as "beschränken," "erfüllen," which originally refer to acts, but are coming to describe states,—also the abbreviation of the form "geworden sein" accounts for some cases. Comparative syntax tempts one to see in this the beginning of a trend that may eventually do away with one or other of the auxiliaries as superfluous,—presumably with "werden."

### "Sein" as an auxiliary of the passive ..... 95 instances

**Optative uses**, example "als Beispiel seien zunächst die weitverbreiteten zur Klasse der Ogersagen gehörigen Märchen angeführt" (37).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
32	1	37	1	53	1	61	1
36	1	51	1	60	1	63	1
						Total...	8

**Subjunctive uses**, example "der Luchs müsste als ausgerottet gelten wenn nicht ab und zu ein Exemplar aus den östlichen Grenzgebieten eingewechselt wäre" (46).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	2	17	1	46	1	56	1
4	2	21	1	52	1	61	1
12	1					Total...	11

**Indicative uses**, example "eine zweite etwas kleinere Tonne ist nun umgekehrt in die erstere hereingesetzt und hat an ihrem Deckel einen kurzen Aufsatz mit Ventil" (7) "anf dass nicht die Massen den Lockungen der falschen Propheten preisgegeben sind" (43) "dass soll damit ausgedruckt sein dass, etc." (55).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	14	3	35	2	53	2
2	1	16	4	42	3	54	2
3	1	20	1	43	7	55	2
4	1	21	2	44	3	62	1
5	1	23	1	46	2	63	2
7	7	29	1	47	1	67	3
11	5	30	1	51	1	70	1
12	1	34	1	52	2	71	6
13	4					Total...	76



## CHAPTER III.

### INTERLACED CLAUSES.

Ready comprehension of meaning is hindered by that interlacing of main and subordinate thought that is caused by the transposition of the separable prefix, the infinitive, the participle and the subordinate finite verb to the end of the sentence. For many years good style has avoided this when the subordinate thought was a clause,—terminating the main clause before commencing the subordinate one. But during the period under discussion an extension of this practice can be observed to include those subordinate thoughts that are embodied either in quasi-clauses (lacking an expressed verb) or in phrases. For the matter examined such groups are introduced by one of the following words:

als (introducing quasi-clause).....	33 instances	
an .....	3	"
auf .....	12	"
aus .....	5	"
ausser .....	1	"
bei .....	3	"
denn (introducing quasi-clause).....	2	"
durch .....	23	"
für .....	7	"
gegen .....	1	"
in .....	17	"
mit .....	25	"
nach .....	1	"
ohne .....	2	"
über .....	6	"
unter .....	2	"
von .....	28	"
vor .....	1	"
wie (introducing quasi-clause).....	17	"
zu .....	11	"
zwischen .....	3	"
miscellaneous substantive groups used as subject or in apposition.....	3	"

Pure prepositional phrases vary from two words to nineteen words in length ..... **130 instances**

Group of 2 words, example "die Bodenerhebungen auszudrücken durch Farben" (8).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
8	1	10	1
		31	1
			Total... 3

**Group of 3 words**, example "er ist beherrscht von seinen Leidenschaften" (26).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	2	26	1	37	1	59	2
8	1	27	1	43	1	61	2
13	1	30	1	45	2	66	2
21	1	35	1	55	1	68	1
							Total... 21

**Group of 4 words**, example "Vorstellungen die antworten auf alle wissenschaftlichen Fragen" (13).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
10	2	23	1	43	3	55	1
12	1	31	1	46	1	61	3
13	3	34	1	49	1	64	1
17	1	39	2	51	1	66	1
							Total... 24

**Group of 5 words**, example "die sich zusammendrängen auf dem Boden der Forderung" (43).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	2	23	1	45	2	53	1
12	3	35	1	47	1	58	1
16	1	42	2	50	1	66	1
19	1	43	4	52	1	Total... 23	

**Group of 6 words**, example "dass kaum etwas fehle ausser einer genauen Aufstellung der Gattungen" (14).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
12	1	41	1	46	1	64	1
14	1	42	1	50	1	66	1
23	1	43	1	52	1	67	1
32	1	44	1	61	1	68	1
38	1	45	1	63	1	Total... 19	

**Group of 7 words**, example "wie wir zurückstehen gegen die Hirten und Schiffer des Alterthums" (61).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
9	1	31	1	60	1	66	1
15	1	43	2	61	2	67	1
23	1	49	1			Total... 12	

**Group of 8 words**, example "so dass keine Kluft bleibt zwischen der Kreide-Astronomie des Schulzimmers und der empirischen" (61).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
12	1	26	1	43	2	52	1
13	1	39	1	45	1	53	1
19	1	41	1	47	1	61	1
							Total... 13

**Group of 9 words**, example "sind charakterisiert durch die Unabhängigkeit ihrer Farben vom Beleuchtungs- und Betrachtungs-winkel" (38).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	35	1	38	1	49	1
							Total... 4

**Group of 10 words**, example "lasse das Ergebniss prüfen durch eine aus Fachmännern der verschiedenen Kategorien gebildete vereidigte Kommission" (12).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
9            1	12          1		Total... 2

**Group of 11 words**, example "sie ist erwachsen aus der Freude an dem Wesen und der Trefflichkeit des Mannes" (28).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
17           1	28          1	39          1	Total... 3

**Group of 12 words**, example "hat abseits gestanden von dem allgemeinen Komplex der Physik der Naturwissenschaft und der Kultur überhaupt" (66).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
61           1	66          1		Total... 2

**Group of 13 words**, example "setzt sich zusammen aus der Gesamtheit der den Kapitalbesitzern zufallenden Reinerträge und der Gesamtheit der Löhne" (52) the only instance.

**Group of 14 words**, example "wie der gesunde Schlaf sich verhält zu den krankhaften Zuckungen des mit dem Tode Ringenden, oder der Starrheit des Verblichenen" (11) the only instance.

**Group of 15 words**, example "die erfüllt sind von der Einsicht in die Aufgaben des Staates und dem Willen dieser Aufgabe zu dienen" (43) the only instance.

**Group of 19 words**, example "sie giebt sich zu erkennen in Aufsicht und Warnung, Tadel und Lob, thätiger Beihülfe in Unglücksfällen, erforderlichen Falls aber auch in Lösung des Dienstverhältnisses" (1) the only instance.

**The phrase may contain within it a clause ..... 20 instances**

Example "konnte sie vergleichen mit einem Capital was in Ländereien angelegt ist" (4).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
1            1	17          1	42          1	48          1
10          1	21          1	43          1	59          1
13          3	26          1	44          1	61          3
16          1	28          1	46          1	66          1
			Total... 20

**The subordinate thought is a substantive group in apposition without introductory word ..... 3 instances**

Example "wenn knien bedeutet auf den Knien liegen" (18).

Book. Instances.	Book. Instances.	Book. Instances.	Book. Instances.
18           1	23          1	37          1	Total... 3

**The interlacing is commonly avoided with "quasi-clause" groups, i. e., groups that would form a clause except that no verb is expressed. These are introduced by "als", "denn" or "wie" ..... 52 instances**

**Groups with "als"** (Eng. "as" in comparison), example "von den geschichtlichen Ereignissen des Mittelalters hat keines so gewaltig alle Verhältnisse erschüttert als dasjenige womit das Mittelalter anhebt" (22) the only instance.



**Groups with "als" (Eng. "as" not in comparison),** example "diese Elemente sind in jeder Wahrnehmung enthalten als drei notwendige Faktoren aller Erkenntniss" (19).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
10	1	47	1	58	1	61	1
19	2					Total...	6

**Groups with "als" (Eng. "except"),** example "die nach dem Edinburgh Review keine Zukunft hat als das Armenhaus" (17) the only instance.

**Groups with "als" (Eng. "than"),** example "da man beim ruhigen Sitzen viel besser beobachten kann als beim Stehen" (34).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
2	1	24	1	46	1	59	1
3	1	26	1	52	1	61	2
4	2	30	2	53	1	62	1
8	1	34	1	57	1	63	1
10	1	40	1	58	2	68	2
						Total...	25

**Groups with "denn",** example "so viel als die Sonne grösser sei denn der Mond" (59) two instances in book No. 59.

**Groups with "wie",** example "macht sich nun nirgends in so auffallender Weise geltend wie wurt bei der Erforschung des Lebens" (19).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
12	3	24	1	58	1	65	1
13	2	30	1	61	4	68	1
19	2	31	1			Total...	17

## CLIMATIC ABSOLUTE GROUPS.

Participles may be used absolutely,—not forming part of finite verb tenses, but introducing adverbial or adjective groups of greater or less length. The climactic impulse has placed such participles at the end of such groups. There is now a marked tendency to reverse this order, in accord with the simplest logic. It is shown pre-eminently in a few particular words, such as “betreffend,” “angenommen,” but may affect any participle. The table in the last chapter will give statistics regarding this movement. A marked feature is that the Participle II is much more common in this construction than the Participle I, and that it likewise shows a greater tendency to take the logical rather than the climactic position.

### Participle I.

Examples “Epidemieen von Typhus können zu allen Zeiten vorkommen, doch finden wir sie, übereinstimmend mit dem sonstigen Verhalten des Typhus, am häufigsten im Herbst und Winter” (5) “ein Teil des Volkes, der, träumend wie ein Kind vom goldenen Paradies der Menschheit auf Erden ohne systematisch erzeugenen Willen gelassen wird” (43).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
5	1	38	2	49	3	66	1
8	1	42	1	53	1	68	1
28	1	43	2	54	1	70	1
34	1	44	1			Total...	18

### Participle II.

Examples “bis man den Ofen abkühlen lässt, vorausgesetzt dass der Ofen kein solcher mit ununterbrochener Feuerung ist” (7) “Bischof Bernold, gestorben 840” (23) “Zornentbrannt über diese Verweigerung des Gehorsams, beschied der König den Prälaten zur Verantwortung” (25).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	3	20	1	35	2	56	1
2	3	22	1	36	4	60	5
3	1	23	2	37	5	61	1
7	1	24	5	40	2	63	2
8	3	25	2	42	1	64	3
9	1	26	2	43	2	66	1
12	3	28	1	45	1	67	3
16	2	30	2	47	1	70	3
17	2	34	2	54	2	71	2
						Total...	78

## POSTPOSITIVE PREPOSITIONS.

The function of the preposition is to state the logical relationship between its substantive and the main thought. The simplest logical sequence is conserved by stating the relationship first and the substantive idea afterward, as is invariably done in the case of those other relationship words,—the conjunctions and the relative pronouns.

Take for instance the sentence "das geschah gemäss meinem Willen." The various ideas are presented in such sequence as to make no demand upon the memory and give no occasion to go back and reread words. But let the words be grouped thus—"das geschah meinem Willen gemäss." The words "meinem Willen" are now meaningless until their relationship to the main thought is expressed by the preposition "gemäss,"—for it might have been "zuwider" with an entirely different idea. Until the mind has grasped the relationship expressed by the preposition, the substantive group must be held by an effort of memory,—or else the reader must go back and reread.

Nearly all prepositions are thus logically placed before the nouns they introduce. Therefore the few exceptions are doubly objectionable,—first because they are illogical and second because they do not conform to usage.

If all prepositions followed their nouns, logic would yield to usage and readers form the habit of grasping the prepositional phrase backward,—it would still be out of conformity to the idea sequence prevailing in the language.

But the uneconomical fact is that two word order rules have been kept up for the preposition. Its position has not become fixed, either in accordance with logic or otherwise. We have had a dual usage extending even so far as to a variable position for the same preposition (cf. *Blatz neuhochdendendeutsche Grammatik, II*, "Gemäss, mit Dativ, vorstehend und nachstehend"). The reader is never forewarned which end of a prepositional phrase to take hold of.

Because prepositional groups are usually short, this unsettled condition could be accepted without great hardship, if there were a valid reason for it. But the only reason is the historical one basing perhaps in the freedom with which the modifying cases, genitive and dative, were placed before the words they modified in late Middle High German,—a passing fad rather than a native feature of the language.

Engelien, writing in 1867, listed 83 prepositions, 68 to precede their substantives, 7 to follow and 8 more or less free to take either position; perhaps the tendency of scientific writers to "standardize" the position of the preposition may result in a permanent end of this chaotic condition.



In this study four prepositions have been considered, "gegenüber, gemäss, nach and wegen.

**Gegenüber, placed after the substantive ..... 25 instances**

**Governing a relative, example "denen gegenüber" (61).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	37	1	44	1	61	1
27	1					Total....	5

**Governing miscellaneous groups, example "den auf der Presse hergestellten (Farbenildern) gegenüber" (38).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
4	1	22	1	40	1	54	1
12	2	24	1	41	1	61	1
21	2	38	1	44	3	71	1
						Total...	16

**Governing two nouns, example "den Kernen und Bacillen gegenüber" the only instance.**

**Governing noun followed by a genitive modifier, example "dem absoluten Wissen der Gottheit gegenüber" (13).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
13	1	42	1				
						Total...	2

**Governing noun followed by prepositional modifier, example, "der Liebe zur Gattin gegenüber" (56) the only instance.**

**Gegenüber, preceding the substantive.....23 instances**

**Governing miscellaneous groups, example "gegenüber dem von ihm beigebrachten Material" (54).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
17	1	41	3	54	2	59	1
23	1	45	1	56	1	70	1
29	2	49	1	58	1	71	1
36	2	50	2			Total...	20

**Governing two nouns, example "gegenüber der offiziellen Priester und Staats-tradition" (7) the only instance.**

**Governing a noun followed by a prepositional modifier, example "gegenüber den arabischen Märchen aus Tausend und einer Nacht" (27).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
27	1	59	1				
						Total...	2

**Gemäss placed after the substantive ..... 17 instances**

**Example "den politischen Zielen Zwinglis gemäss" (23).**

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
4	1	12	2	23	1	48	1
7	1	17	1	25	1	69	1
9	1	21	1	30	1		
10	1	22	1	31	2	Total...	17

**Gemäss preceding the substantive . . . . . 3 instances**

Examples "gemäss dem 'non scholae sed vitae discendum'" (61) "gemäss dieser hohen Bedeutung des Salpeters" (62) "gemäss der Definition des Halbtens" (66). It will be noticed that all these instances are late (since 1913) in spite of the fact that this preposition is becoming quite rare.

**Nach placed after the substantive . . . . . 36 instances**

Example "dem äusseren Anscheine nach" (59).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
4	1	14	6	27	1	54	1
9	1	18	1	30	1	59	4
10	1	21	2	43	1	63	1
11	1	22	1	49	1	64	3
12	1	23	2	51	1	65	1
13	1	24	1	52	1	70	1
							Total... 36

**Nach preceding the substantive . . . . . 250 instances**

Citing an authority, "nach Behaghel" (68).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	14	1	52	1	66	1
3	1	17	1	57	3	68	1
5	1	21	1	62	1	69	1
6	1	31	1	63	1	71	3
7	1	39	4	65	1	Total... 26	

Governing a relative, "nach deren gesetzmässiger Wechselbeziehung" (10).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
10	2	15	1	31	1	68	1
11	1	16	1	43	1	71	2
							Total... 10

Governing miscellaneous groups, examples "nach denselben Gesichtspunkten" (37) "nach der jetzt wohl überall durchgedrungenen Anschauung" (56).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
3	3	18	3	33	2	53	1
4	1	20	2	35	1	56	3
6	2	21	3	36	4	57	4
7	1	22	3	37	2	59	1
8	5	23	3	39	1	60	3
9	8	24	5	42	2	61	5
10	5	25	1	44	2	62	2
11	1	26	1	45	3	63	3
12	2	27	2	46	2	66	7
13	7	29	1	48	1	69	6
14	2	30	1	49	1	70	1
15	1	31	1	50	3	71	4
16	6	32	1	52	4	Total... 139	

Governing two or more nouns, example "nach Sprache, Sitten und Tracht" (23).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
5	2	21	1	28	1	63	2
11	1	23	1	46	3	70	2
15	1	26	2	59	1	Total... 17	

**Group containing "nach" twice**, example "nicht nur nach ihrer Grösse sondern auch nach ihrer durch Verschiedenheit der Mischung hervorgehenden Natur" (7).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
7	1	11	1	29	1	59	1
							Total... 4

**Governing a noun followed by a genitive modifier**, example "nach Weise des deutschen Hanswurst" (20).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	20	1	35	1	60	1
7	4	24	1	39	1	61	1
9	3	26	1	41	1	62	1
10	2	27	2	46	2	66	2
13	1	28	1	50	1	71	1
15	1	32	2	56	1		
16	3	33	1	59	2	Total... 39	

**Governing a noun followed by a prepositional modifier**, example "nach Art von Depeschen" (33).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
8	1	24	1	45	2	60	1
13	1	33	1	55	1	65	1
18	1						Total... 10

**Governing a noun followed by a relative modifier**, example "nach dem was soeben ausgeführt worden ist" (59).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
31	1	59	1	64	1	70	1
51	1						Total... 5

**Wegen placed after the substantive ..... 5 instances**

Example "der vollständigen Uebersicht wegen" (9).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
4	1	12	1	16	1	30	1
9	1						Total... 5

**Wegen preceding the substantive ..... 42 instances**

Examples "wegen seines Systems" (14) "wegen seines Vorkommens in Salpeter" (63) "wegen der hier meist fehlenden Callusbildung" (67).

Book.	Instances.	Book.	Instances.	Book.	Instances.	Book.	Instances.
1	1	23	3	44	1	62	2
5	1	25	2	48	2	63	1
10	1	29	1	51	3	65	1
14	1	30	2	55	1	66	1
16	1	37	1	59	1	67	2
18	1	38	5	61	1	71	4
19	1						Total... 42



## CHAPTER IV.

### CONCLUSIONS.

The effort of the preceding pages has been to portray, not the unusual, but the typical conditions that prevail with regard to those features of style under consideration. In the table that concludes this study these conditions will be summed up statistically.

#### The Typical Sentence.

Especial attention is invited to the last row of figures in the table, giving the averages of the various columns and thus showing the status of a style characteristic of the entire group studied. Such a style would present the following features:

Average sentence length .....	31	words
Average length of long sentences (over 30 words).....	47	"
Length of longest sentence .....	94	"
Percentage of long sentences (over 30 words).....	39%	
Percentage of very long sentences (over 60 words).....	8%	
Modified attributive participles per 100 sentences.....	24	
(Of these 21 under 6 words, 3 of 7-12 words, while 36% of them are based upon the Participle I.)		
Longest modified attributive participle group.....	10	words
Modified attributive adjectives .....	10	
Percentage of simple sentences .....	28%	
Absolute groups based upon Participle I.....	1	
(This participle would follow its group.)		
Absolute groups based upon Participle II.....	4	
(Three of these participles would follow their groups while one would precede.)		
Percentage of one-word verb forms.....	65%	
Percentage of two-word verb forms.....	30%	
Percentage of verb forms of over two words.....	5%	
Instances of the passive per one hundred sentences.....	36	
(Of these 24 would be with "werden," 11 with "sein," and 1 with some word like "scheinen.")		
Instances of the reflexive per 100 sentences.....	9	
Instances of verb-prefix separated from verb per one hundred sentences .....	9	
Instances of "nach" (according to) before noun.....	4	
Instances of "gegenüber" before noun.....	1	

# CHRONOLOGICAL

Serial No.	Sentence Length.					Modified Participles.								Absolute Participles.						
	Av. Length Sent.	Av. Over 30 Words.			Longest Sentence.	% Over 30 Words.	% Over 60 Words.	No. Instances.	No. 1-6 Words.	No. 7-12 Words.	No. 13 and Over.	% Part. I.	Average Length.	Longest.	No. Mod. Adj.	% Simple Sentences.				
		Before Noun.	After Noun.	Before Noun.													After Noun.			
1.	35	49	93	52	12	14	11	3	..	26	5.4	11	9	21	..	..	3	1		
2.	23	40	71	23	2	28	25	3	..	39	4.1	9	5	32	..	..	10	2		
3.	25	42	73	27	3	20	16	4	..	55	5.3	11	14	26	..	..	4	1		
4.	32	41	61	36	2	21	19	2	..	38	4.0	7	10	19	..	..	1	..		
5.	39	53	142	57	15	49	39	10	..	43	4.4	10	35	23	1	..	..	2		
6.	35	54	199	46	10	34	31	3	..	29	4.2	8	3	24	..	..	5	..		
7.	25	44	80	29	3	8	7	1	..	38	5.9	7	2	31	..	..	..	3		
8.	28	42	72	42	3	4	4	..	..	0	3.5	4	3	10	..	..	3	3		
9.	30	49	106	40	8	21	16	5	..	52	4.9	8	7	30	..	..	1	3		
10.	24	42	62	20	1	8	6	2	..	38	5.5	12	8	33	..	..	..	2		
11.	25	43	64	27	1	30	28	2	..	53	4.4	10	2	33	..	..	..	1		
12.	40	55	138	57	15	17	13	4	..	41	4.7	9	15	15	..	..	2	3		
13.	26	47	83	28	7	2	2	..	..	0	3.0	4	2	20	..	..	1	..		
14.	49	61	136	69	31	38	32	6	..	21	4.6	12	20	5	..	..	1	..		
15.	26	49	87	28	6	10	9	..	1	40	3.8	12	5	51	..	..	..	4		
16.	56	52	113	56	12	31	27	3	1	16	4.7	13	16	23	..	..	2	2		
17.	43	54	124	50	10	31	26	5	..	48	4.6	7	9	8	..	..	4	2		
18.	34	49	150	50	6	9	9	..	..	56	3.6	5	9	17	..	..	..	..		
19.	26	42	89	34	3	18	16	2	..	72	4.2	8	11	26	..	..	2	..		
20.	25	40	71	31	1	19	17	1	1	32	4.6	15	5	44	..	..	3	1		
21.	30	46	85	41	6	26	24	2	..	19	4.5	9	2	19	..	..	1	..		
22.	31	45	76	30	6	14	11	3	..	50	3.9	8	4	12	..	..	3	1		
23.	32	49	89	36	8	16	15	1	..	38	4.2	7	6	51	..	..	..	2		
24.	64	72	254	87	48	77	60	15	2	30	5.5	28	26	6	..	..	3	5		
25.	28	47	98	22	4	11	11	..	..	18	3.6	5	4	33	..	..	2	3		
26.	32	43	75	28	4	9	8	1	..	33	4.4	8	14	43	..	..	..	2		
27.	30	47	100	34	7	38	30	8	..	39	4.7	11	12	26	..	..	3	..		
28.	40	49	123	44	4	21	19	2	..	43	3.9	7	15	14	..	..	2	1		
29.	28	47	69	52	10	16	14	2	..	31	5.1	11	4	38	..	..	1	..		
30.	26	36	42	16	0	8	8	..	..	25	3.9	6	10	50	..	..	2	2		
31.	34	46	94	55	8	16	13	3	..	50	4.8	10	6	24	..	..	3	..		
32.	28	46	87	33	4	16	14	2	..	31	4.6	9	4	24	..	..	1	..		
33.	24	41	83	26	2	20	17	2	1	30	4.9	15	12	42	..	..	1	1		
34.	34	46	90	52	6	28	20	8	..	57	5.5	10	6	5	1	2	2	1		
35.	25	40	57	31	0	21	18	3	..	52	5.0	10	9	36	..	..	1	2		
36.	33	44	89	53	5	18	18	..	..	44	4.1	6	4	12	..	..	2	5		
37.	29	39	69	42	1	28	22	5	1	32	5.1	15	19	23	..	..	3	5		
38.	24	40	67	21	1	27	21	4	2	19	5.8	14	6	27	2	..	..	2		
39.	24	47	85	24	4	8	6	2	..	38	5.3	11	8	68	..	..	1	..		
40.	26	43	75	29	2	19	17	2	..	21	4.2	8	4	24	..	..	1	2		

## SUMMARY

Serial No.	Elaborate Verb Forms.								Prepositions.							
	1-word Forms.	2-word Forms.	3 or more.	Reflexives.	Prefix Separated from Verb.	Werden Passives.	Sein Passives.	Misc. Passives.	Nach	Wegen	Gegen- über		Gemäss			
									Before Noun.	After Noun.	Before Noun.	After Noun.	Before Noun.	After Noun.	Before Noun.	After Noun.
1.	68	28	4	9	5	31	12	4	2	..	1	..	1	..		
2.	83	15	2	13	13	2	7	..	..	..	..	..	..	..		
3.	62	27	11	9	10	22	4	1	4	..	..	..	..	..		
4.	57	36	7	12	6	23	18	5	1	1	..	1	..	1		
5.	61	29	10	5	5	21	11	..	3	..	1	..	1	..		
6.	70	25	5	9	6	34	9	..	3	..	..	..	..	..		
7.	59	35	6	6	4	66	13	..	9	..	..	..	..	1		
8.	59	33	8	7	4	31	3	..	6	..	..	..	..	..		
9.	70	27	3	9	16	27	5	2	12	1	..	1	..	1		
10.	60	31	9	10	1	16	1	..	9	1	1	..	..	1		
11.	65	29	6	15	5	24	11	..	5	1	..	..	..	..		
12.	59	36	5	6	4	19	10	1	2	1	..	1	..	2		
13.	63	29	8	8	8	21	21	..	9	1	..	..	1	..		
14.	73	25	2	7	7	32	31	4	3	6	1	..	..	..		
15.	74	25	1	8	20	36	7	2	4	..	..	..	..	..		
16.	59	33	8	9	2	51	14	5	10	..	1	1	..	..		
17.	57	40	3	3	7	31	22	2	1	..	..	..	1	..		
18.	71	20	9	7	10	28	11	1	4	1	1	..	..	..		
19.	75	22	3	12	8	24	10	2	..	..	1	..	..	..		
20.	75	23	2	15	15	13	4	..	3	..	..	..	..	..		
21.	66	28	6	13	5	16	23	3	5	2	..	..	1	2		
22.	69	29	2	8	24	9	14	3	3	1	..	..	1	..		
23.	75	16	9	6	14	27	10	..	4	2	3	..	1	..		
24.	65	28	7	10	28	46	19	2	7	1	..	..	1	..		
25.	65	29	6	14	16	17	5	1	1	..	2	..	..	1		
26.	82	16	2	9	20	7	2	2	4	..	..	..	..	..		
27.	69	27	4	5	12	16	11	1	4	2	..	..	1	1		
28.	73	27	..	3	4	19	13	2	2	..	..	..	..	..		
29.	65	31	4	9	8	47	17	3	3	..	1	..	2	..		
30.	48	47	5	16	9	15	26	..	1	1	2	1	..	1		
31.	64	33	3	8	7	11	9	4	4	..	..	..	..	2		
32.	52	44	4	18	3	19	10	1	3	..	..	..	1	..		
33.	61	33	6	11	6	17	9	2	4	..	..	..	..	..		
34.	65	33	2	5	10	18	21	2	..	..	..	..	..	..		
35.	64	30	6	16	7	15	2	..	2	..	..	..	..	..		
36.	59	39	2	6	4	41	10	1	4	..	..	1	..	..		
37.	59	28	13	7	1	28	17	..	2	..	1	..	1	..		
38.	58	32	10	8	1	41	5	..	..	..	5	..	1	..		
39.	71	26	3	11	12	21	5	..	6	..	..	..	..	..		
40.	65	29	6	15	6	8	8	..	..	..	..	..	1	..		



# CHRONOLOGICAL

Serial No.	Sentence Length.					Modified Participles.								Absolute Parts.				
														P. I. P. II.				
	Av. Length Sent.	Av. of Over 30 Word Longest Sentence.	% Over 30 Words.	% Over 60 Words.	No. Mod. Participles	No. 1-6 Words.	No. 7-12 Words.	No. 13 and Over.	% Part. I.	Av. Length M. P.	Longest M. P.	No. Mod. Adj.	% Simple Sentences.	Before Noun.	After Noun.	Before Noun.	After Noun.	
41.	28	44	67	34	4	12	11	1	..	0	4.6	7	2	48	..	1	..	3
42.	35	55	189	46	14	21	19	2	..	38	5.2	12	7	36	1	2	1	1
43.	37	52	152	9	54	29	23	5	1	17	4.7	14	6	16	1	2	3	2
44.	31	47	72	40	8	34	25	6	3	53	6.4	24	7	21	..	2	..	1
45.	31	44	78	46	3	14	14	..	..	36	3.4	4	2	32	..	1	1	..
46.	27	46	77	33	5	45	39	5	1	33	4.6	15	8	28	..	5	..	7
47.	26	41	83	23	3	8	7	1	..	50	4.6	7	4	27	..	4	1	1
48.	33	60	118	56	22	41	30	11	..	44	5.3	11	35	41	..	1	..	3
49.	28	41	63	37	2	29	24	4	1	34	4.7	17	9	21	3	..	..	3
50.	29	42	104	26	2	17	13	4	..	59	4.4	10	4	41	..	..	..	..
51.	20	46	78	11	1	11	10	1	..	27	3.7	7	5	37	..	..	..	..
52.	27	42	71	35	2	33	27	5	1	24	5.3	13	8	30	..	..	..	1
53.	18	40	51	8	0	5	5	..	..	20	3.6	5	2	54	1	1	..	4
54.	42	46	116	52	5	28	17	10	1	50	5.8	13	14	24	..	2	2	4
55.	27	42	77	32	4	4	4	..	..	50	4.8	5	1	33	..	..	..	1
56.	31	41	67	32	4	24	16	8	..	20	5.6	10	9	42	..	..	1	2
57.	27	40	64	36	2	30	28	2	..	27	3.9	12	17	35	..	..	..	3
58.	24	41	76	23	1	12	12	..	..	50	4.3	6	10	33	..	..	..	..
59.	36	60	91	40	16	28	20	8	..	56	5.2	12	24	33	..	..	..	2
60.	34	50	91	49	12	54	45	9	..	52	4.4	10	23	22	..	2	5	2
61.	48	73	148	88	48	46	36	9	1	39	5.0	14	31	18	..	1	1	2
62.	29	46	93	34	4	29	26	3	..	38	4.4	10	16	22	..	1	..	1
63.	30	42	76	46	4	36	32	4	..	36	4.3	9	13	24	..	1	1	6
64.	24	39	65	28	1	30	30	..	..	33	3.9	6	15	18	..	1	3	1
65.	28	46	73	36	4	31	27	4	..	42	4.4	10	6	28	..	..	..	..
66.	40	56	120	56	20	28	24	4	..	32	4.8	12	20	16	1	3	1	2
67.	32	45	120	50	3	43	39	3	1	47	4.1	16	11	28	..	..	3	7
68.	24	42	62	20	2	1	1	..	..	0	3.0	3	3	52	1	..	..	..
69.	40	51	97	65	13	45	33	11	1	51	5.1	13	17	14	..	..	..	2
70.	30	42	88	46	2	37	31	5	1	27	4.8	14	12	22	1	..	3	2
71.	36	50	98	54	9	31	25	6	..	52	4.6	9	5	30	..	2	2	3
Average	31	47	94	39	8	24	21	3	..	36	4.6	10	10	28	..	1	1	3
Totals														13	98	81	183	

The last row of averages shows the conditions typical of the style of the kind of prose under consideration.

# SUMMARY

Serial No.	Elaborate Verb Forms.								Prepositions.							
	1-word Forms.	2-word Forms.	3 or more.	Reflexives.	Prefix Separated from Verb.	Werden Passives.	Sein Passives.	Misc. Passives.	Nach	Wegen	Gegen-über		Gemäss			
											Before Noun.	After Noun.		Before Noun.	After Noun.	Before Noun.
41.	28	29	3	5	..	42	6	..	1	..	..	..	3	1	..	..
42.	64	35	1	9	8	19	4	..	2	..	..	..	..	1	..	..
43.	56	41	3	7	..	10	8	..	1	1	..	..	..	..	..	..
44.	72	24	4	7	7	27	11	1	2	..	1	..	..	4	..	..
45.	76	22	2	14	18	21	9	..	5	..	..	..	1	..	..	..
46.	66	27	7	2	1	18	7	..	7	..	..	..	..	..	..	..
47.	74	26	..	8	8	14	12	2	..	..	..	..	..	..	..	..
48.	42	44	14	9	10	45	9	2	1	..	2	..	..	..	..	2
49.	66	29	5	16	15	20	11	3	1	1	..	..	1	..	..	..
50.	78	22	..	8	21	13	7	4	4	..	..	..	1	..	..	..
51.	72	27	1	7	13	15	10	..	1	1	3	..	..	..	..	..
52.	59	32	9	11	6	35	8	2	5	1	..	..	..	..	..	..
53.	83	15	2	8	4	18	7	..	1	..	..	..	..	..	..	..
54.	68	23	9	7	4	18	1	..	..	1	..	..	2	1	..	..
55.	70	26	4	7	9	26	5	..	1	..	1	..	..	..	..	..
56.	62	29	9	6	6	21	5	1	4	..	..	..	1	1	..	..
57.	60	29	11	11	18	16	11	..	7	..	..	..	..	..	..	..
58.	60	34	6	10	16	7	11	1	..	..	..	..	1	..	..	..
59.	65	29	6	14	12	20	7	2	7	4	2	..	2	..	..	..
60.	68	26	6	10	5	15	10	..	5	..	..	..	..	..	..	..
61.	55	37	8	8	14	31	21	1	6	..	1	..	..	2	1	..
62.	55	38	7	6	5	46	11	2	4	..	2	..	..	..	1	..
63.	61	36	3	7	5	31	6	1	6	1	1	..	..	..	..	..
64.	83	17	..	5	15	9	16	2	1	3	..	..	..	..	..	..
65.	60	30	10	7	5	25	24	1	2	1	1	..	..	..	..	..
66.	65	27	8	6	3	53	4	..	10	..	1	..	..	..	1	..
67.	67	27	6	9	5	22	14	2	..	..	2	..	..	..	..	..
68.	65	31	4	4	13	10	11	..	2	..	..	..	..	..	..	..
69.	60	37	3	6	3	28	7	1	7	..	..	..	..	..	..	1
70.	49	45	6	16	6	43	5	3	5	1	..	..	1	..	..	..
71.	78	21	1	14	7	28	12	..	11	..	5	..	1	1	..	..
Aver- age	65	30	5	9	9	24	11	1	4	..	1	..	1	..	..	..
Totals.....									258	37	43	5	23	25	3	17













**THIS BOOK IS DUE ON THE LAST DATE  
STAMPED BELOW**

**AN INITIAL FINE OF 25 CENTS**

**WILL BE ASSESSED FOR FAILURE TO RETURN  
THIS BOOK ON THE DATE DUE. THE PENALTY  
WILL INCREASE TO 50 CENTS ON THE FOURTH  
DAY AND TO \$1.00 ON THE SEVENTH DAY  
OVERDUE.**

APR 21 1936

LD 21-100m-7,'33